

56. (New). A method, as set forth in claim 31, wherein the controller controls the brake system to apply pressure to one of: all of the front wheels, one of the front wheels, and all of the front wheels and all of the rear wheels in response to receiving the loss of control signal.

57. (New). A method, as set forth in claim 30, wherein the step of detecting a loss of control event of the motor vehicle includes one of the steps of sensing an acceleration of the motor vehicle, measuring yaw rate of the motor vehicle, and calculating a body slip angle or rear tire slip angle.

58. (New). A method, as set forth in claim 33, wherein the controller controls the brake system to apply pressure to one of: all of the front wheels, one of the front wheels, and all of the front wheels and all of the rear wheels in response to receiving the loss of control signal.

59. (New). A method, as set forth in claim 32, wherein the step of detecting a loss of control event of the motor vehicle includes one of the steps of sensing an acceleration of the motor vehicle, measuring yaw rate of the motor vehicle, and calculating a body slip angle or rear tire slip angle.

REMARKS

No new matter is added by this amendment. The present application was filed on July 26, 2001 with original claims 1-44 and claims priority to U.S. Provisional Patent Application 60/221,767, titled "System for Minimizing Injury After a Collision", filed July 31, 2000. The claims were subject to a Restriction Requirement and claims 1-16 and 24-36 were elected. By this amendment, claims 4, 7, and 29 are canceled without prejudice, claims 1-6, 8-11, 24-28, 30, and 32 have been amended and new claims 45-76 have been added. The claims remaining in consideration are claims 1-3, 5-6, 8-16, 24-28, 30-36, and 45-76. Reconsideration is respectfully requested.

Claims 1-16 and 24-36 were rejected under the judicially created doctrine of obvious-type double patenting as being unpatentable over claims 1-28 commonly owned US Patent 6,065,558. This rejection is respectfully traversed.

Independent claim 1 (directed towards a system) and independent claim 24 (directed towards a method) have been amended to more clearly identify the subject applicant regards as the invention. Specifically, claims 1 and 24 have been amended to define the loss of control event as a collision. Furthermore, the brake system is automatically actuated “to slow and/or reorient the motor vehicle” in response to the collision. Applicant respectfully asserts that the present invention as embodied in amended claims 1 and 24 are neither taught nor suggested by the ‘558 patent. Therefore, applicant requests that the obvious type double patenting rejection be withdrawn.

Claims 2-3, and 15-16 are ultimately dependent upon allowable claim 1. For the reasons set forth above and based on their own merits, applicant respectfully asserts that claims 2-3 and 15-16 are also allowable.

Claim 5 has been amended to be in independent form. Claim 6 has been amended to be in independent form and to include the subject matter of claims 6 and 7. Claim 8 has been amended to be in independent form and to include the subject matter of claims 8 and 9 without unnecessary limitations. Claim 9 has been amended to set forth that the controller automatically actuates the brake system.

Claim 10 has been amended to be in independent form and to include the subject matter of claims 10 and 11 without unnecessary limitations. Claim 11 has been amended to set forth that the controller automatically actuates the brake system in response to receiving the loss of control signal. Claim 25 has been amended to be in independent form. Claim 26 has been amended to be dependent upon now independent claim 25. Claim 27 has been amended to be in independent form. Claim 28 has been amended to be in independent form and to include the subject matter of claims 28 and 29 without unnecessary limitations. Claim 30 has been amended to be in independent form and to include the subject matter of claims 30 and 31 without unnecessary limitations. Claim 32 has been amended to be in independent form and to include the subject matter of claims 32 and 33 without unnecessary limitations. Claims 12-14 are dependent upon now independent claim 5. Claims 34-36 are ultimately dependent upon now independent claim 27. Applicant respectfully asserts that the present invention as embodied in independent claims 5, 6, 8, 10, 25, 27, 28, 30, 32, is not taught nor suggested by the ‘558 patent and thus requests that the obvious type double patenting rejection be withdrawn. Dependent claims 9, 11-14, 26, 34-36 and thus are also allowable.

New claims 45-46, 47-48, 49-50, 51-52, 53, 54-55, 56-57, and 58-59 are ultimately dependent upon allowable independent claims 5, 6, 8, 10, 24, 27, 28, 30, and 32, respectively. Thus for the reasons set forth above and based on their merits, applicant asserts that new claims 45-59 are also allowable.

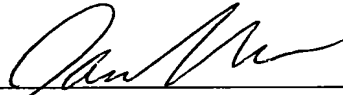
Applicant respectfully urges that the present invention as set forth in the remaining claims are neither taught nor suggested by the '558 patent. Therefore, applicant respectfully requests that the obvious-type double patenting rejection be withdrawn.

All of the Examiner's rejections and objections having been successfully traversed or made moot, applicant asserts that the present application is now in condition for allowance. An early Notice of Allowance is solicited. If the Examiner believes that a telephone interview would be helpful, please contact the undersigned at the number provided.

Respectfully submitted,

HOWARD & HOWARD ATTORNEYS, P.C.

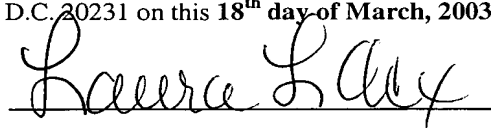
Dated: **March 18, 2003**



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CERTIFICATE OF FIRST CLASS MAILING

I hereby certify that the enclosed paper or fee is being delivered via first class U.S. Mail to Box
Amendment, Assistant Commissioner for Patents, Washington D.C. 20231 on this 18th day of March, 2003.

A handwritten signature in cursive script, reading "Laura L. Acx", is written over a horizontal line.

Laura L. Acx

VERSION WITH MARKINGS TO SHOW CHANGES

IN THE CLAIMS:

Please claim 1 with the following claim:

1. (Amended). A system for use with a motor vehicle having at least one front wheel and at least one rear wheel, comprising:
 - a brake system for applying pressure to resist the rotation of the at least one front wheel and/or the at least one rear wheel;
 - a sensor for detecting an occurrence of a [loss of control event] collision of the motor vehicle and responsively producing a loss of control signal; and,
 - a controller for receiving the loss of control signal and automatically actuating the brake system to slow and/or reorient the motor vehicle.

Please replace claim 2 with the following claim:

2. (Amended). A system, as set forth in claim 1, wherein the [loss of control event] collision is a non-rear end collision.

Please replace claim 3 with the following claim:

3. (Amended). A system, as set forth in claim 1, wherein the [motor vehicle has two front wheels and two rear wheels] wherein the controller controls the brake system to apply pressure to one of: all of the front wheels, one of the front wheels, and all of the front wheels and all of the rear wheels in response to receiving the loss of control signal.

Please replace claim 5 with the following claim:

5. (Amended). A system for use with a motor vehicle having at least one front wheel and at least one rear wheel, comprising, [as set forth in claim 1]:
 - a brake system for applying pressure to resist the rotation of the at least one front wheel and/or the at least one rear wheel;
 - a sensor for detecting an occurrence of a loss of control event of the motor vehicle and responsively producing a loss of control signal; and,

a controller for receiving the loss of control signal and automatically actuating the brake system[, wherein the controller is adapted to attempt] to reorient the motor vehicle.

Please replace claim 6 with the following claim:

6. (Amended). A system for use with a motor vehicle having at least one front wheel and at least one rear wheel, [as set forth in claim 5,] comprising:

a brake system for applying pressure to resist the rotation of the at least one front wheel and/or the at least one rear wheel;

a steering system for controllably steering the at least one front wheel and/or the at least one rear wheel;

a sensor for detecting an occurrence of a loss of control event of the motor vehicle and responsively producing a loss of control signal; and,

a controller for receiving the loss of control signal and automatically reorienting the motor vehicle through application of the brake system and/or the steering system.

Please replace claim 8 with the following claim:

8. (Amended). A system for use with a motor vehicle having an engine and at least one front wheel and at least one rear wheel, comprising[, as set forth in claim 1,]:

a sensor for detecting an occurrence of a loss of control event of the motor vehicle and responsively producing a loss of control signal; and,

a controller for receiving the loss of control signal and automatically reducing a power output of the [including an engine control system for controlling an] engine in response to receiving the loss of control signal.

Please replace claim 9 with the following.

9. (Amended). A system, as set forth in claim 8, further comprising a brake system for applying pressure to resist the rotation of the at least one front wheel and/or the at least one rear wheel, wherein the controller is adapted to [reduce a power output of the engine] automatically actuating the brake system in response to receiving the loss of control signal.

Please replace claim 10 with the following:

10. (Amended). A system for use with a motor vehicle having an engine and at least one front wheel and at least one rear wheel, comprising[, as set forth in claim 8,];

an [wherein the] engine control system coupled to the engine and including [includes] a cruise-control function;

a sensor for detecting an occurrence of a loss of control event of the motor vehicle and responsively producing a loss of control signal; and,

a controller for receiving the loss of control signal and automatically canceling the cruise-control function in response to receipt of the loss of control signal.

Please replace claim 11 with the following:

11. (Amended). A system, as set forth in claim 10, further comprising a brake system for applying pressure to resist rotation of the at least one front wheel and/or the at least one rear wheel wherein the controller automatically actuates the brake system [the cruise-control function is cancelled] in response to receipt of the loss of control signal.

Please replace claim 15 with the following:

15. (Amended). A system, as set forth in claim 1, wherein the sensor [includes] is an accelerometer, or the sensor measures yaw rate of the motor vehicle, or the controller calculates a body slip angle or rear tire slip angle.

Please replace claim 24 with the following:

24. (Amended). A method for use with a motor vehicle having at least one front wheel and at least one rear wheel and a brake system for applying pressure to resist the rotation of the at least one front wheel and/or the at least one rear wheel, the method comprising:

detecting an occurrence of a [loss of control event] collision of the motor vehicle; and,
automatically actuating the brake system in response to detecting the loss of control event to slow and/or reorient the motor vehicle.

Please replace claim 25 with the following:

25. (Amended). A method, as set forth in claim 24, wherein the [loss of control event] collision is a non-rear end collision.

Please replace claims 26 with the following:

26. (Amended). A method, as set forth in claim 24, including the step of applying pressure to one of: all front wheels, one of the front wheels, and all of the front wheels and all of the rear wheels.

Please replace claim 27 with the following:

27. (Amended). A method for use with a motor vehicle having at least one front wheel and at least one rear wheel and a brake system for applying pressure to resist the rotation of the at least one front wheel and/or the at least one rear wheel, [as set forth in claim 24,] comprising:

detecting an occurrence of a loss of control event of the motor vehicle; and,
[including the step of attempting to attempting] automatically actuating the brake system in response to detecting the loss of control to reorient the motor vehicle.

Please replace claim 28 with the following:

28. (Amended). A method for use with a motor vehicle having at least one front wheel and at least one rear wheel and a brake system for applying pressure to resist the rotation of the at least one front wheel and/or the at least one rear wheel, wherein the motor vehicle includes a steering system for controllably steering the at least one front wheel and/or the at least one rear wheel [as set forth in claim 24,] comprising:

detecting an occurrence of a loss of control event of the motor vehicle; and,
reorienting the motor vehicle through application of the brake system and/or the steering system after the loss of control event has occurred.

Please cancel claim 29 without prejudice.

29. (Cancelled).

Please replace claim 30 with the following:

30. (Amended). A method [as set forth in claim 24,] for use with a motor vehicle having [wherein the motor vehicle includes an engine control system for controllably actuating] an engine and at least one front wheel and at least one rear wheel and a brake system for applying pressure to resist the rotation of the at least one front wheel and/or the at least one rear wheel, comprising:
detecting an occurrence of a loss of control event of the motor vehicle; and,
reducing power output of the engine in response to detecting the occurrence of the loss of control event.

Please replace claim 31 with the following.

31. (Amended). A method, as set forth in claim 30, wherein the motor vehicle includes a brake system for applying pressure to resist the rotation of the at least one front wheel and/or the at least one rear wheel, including the step of [reducing power output of the engine] automatically actuating the brake system in response to detecting the occurrence of the loss of control event.

Please replace claim 32 with the following:

32. (Amended). A method for use with a motor vehicle having an engine control system for controllably actuating an engine, [as set forth in claim 30, wherein] the engine control system includes a cruise-control function, comprising:
detecting an occurrence of a loss of control event of the motor vehicle; and,
canceling the cruise-control function in response to detecting the occurrence of the loss of control event.

Please replace claim 33 with the following:

33. (Amended). A method, as set forth in claim 32, wherein the motor vehicle includes a brake system for applying pressure to resist the rotation of the at least one front wheel and/or the at least one rear wheel, including the step of [canceling the cruise-control function] automatically actuating the brake system in response to detecting the occurrence of the loss of control event.